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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,217	07/30/2003	Nathaniel T. Becker	GC515-2-US-C1	8779
<div>7590 11/01/2007 JEFFERY D. FRAZIER GENENCOR INTERNATIONAL, INC. 925 PAGE MILL ROAD PALO ALTO, CA 94304</div>			<div>EXAMINER NAFF, DAVID M</div>	
			<div>ART UNIT 1657</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 11/01/2007</div>	<div>DELIVERY MODE PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/630,217	Applicant(s) BECKER ET AL.	
	Examiner David M. Naff	Art Unit 1657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/10/07</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for
5 continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/10/07 has been entered.

An amendment filed 8/10/07 amended claims 12, 17, 19, 20, 22-27,
10 29-31, and added new claims 32-34.

Claims examined on the merits are 12-34, which are all claims in the application.

Claim Objections

Claims 13-16, 18, 21 and 28 are objected to because of the
15 following informalities: the claims are identified as "currently amended". However, no amendment to the claims has been made by striking through or underlining. Appropriate correction is required.

Claim Rejections - 35 USC § 102

Claims 12-16 and 18-26 are rejected under 35 U.S.C. 102(b) as
20 being anticipated by Herdeman (4,707,287).

The claims are drawn to a granule having a protein core and a hydrated barrier material coating over the protein core, and the
25 granule having a moderate or high water activity.

Herdeman discloses a granule having a enzyme core (col 5, line 5) that can be ALCALASE (col 6, line 10), a protective coating of

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alkaline buffer salt around the core (col 2, lines 15-35, and col 3, lines 43-47), a water-soluble nonionic waxy overcoating that can be polyethylene glycol, and a coating of acetate phthalate resin (col 2, lines 50-60, and col 7, lines 15-17). The granule has a moisture
5 content of 3-10% (col 7, lines 10-11).

The granule of Herdeman is the same as presently claimed. When the granule of Herdeman has slightly less than 10% water, the protective coating will contain water, and the granule will have a water activity of moderate or high, or within ranges of dependent
10 claims.

Response to Arguments

The amendment urges that Herdeman dries to a water content less than 10%, and therefore produces mostly anhydrous granules, which would not have a moderate or high water activity. However, the term
15 "moderate or high water activity" is relative and subjective, and the granule of Herdeman having slightly less than 10% water can be considered to have moderate or high water activity depending on ones interpretation of moderate or high water activity. Furthermore, in examples of the present specification, fluidizing is performed with
20 air temperature as high as 95⁰ C. This high air temperature will dehydrate.

Claim Rejections - 35 USC § 103

Claims 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herdeman in view of Dychdala et al (3,793,216).

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The claims require a hydrated inorganic salt as the barrier selected from salts that are a heptahydrate.

Dychdala et al disclose using different hydrated inorganic salts including sodium phosphate dibasic heptahydrate (col 3, lines 63-64) to provide a water content of 3-13% (col 91 line 29).

It would have been obvious to use as the alkaline buffer salt of Herdeman, a heptahydrate salt as taught by Dychdala et al to maintain the moisture content 3 to less than 10% that Herdeman may use as suggested by Dychdala et al using a hydrated salt to maintain a moisture content of 3-13%.

Response to Arguments

As set forth above, there is inadequate evidence that the granule of Herdeman does not have the claimed water activity. While Dychdala et al may not disclose a protein-containing granule, Dychdala et al is applied with Herdeman who suggests a protein-containing core. The references are applied together and must be considered together as a whole.

Claim Rejections - 35 USC § 103

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 17 and 27 above, and further in view of Arnold et al (5,324,649).

The claim requires an enzyme core to comprise a seed particle coated with an enzyme.

Arnold et al disclose producing a granule containing an enzyme coated on a core particle (col 2, lines 13-39).

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It would have been obvious to provide the enzyme core of Herdeman by coating the enzyme on a particle as suggested by Arnold et al, when using a hydrated salt as the barrier coating on the enzyme core as set forth above.

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Response to Arguments

The type of response set forth above also applies to this rejection.

Claim Rejections - 35 USC § 103

Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herdeman.

The claims are drawn to methods of preparing the granule.

The method for granule preparation disclosed by Herdeman is the same as presently claimed except for temperatures required by the claims. Selecting preferred optimum temperatures for preparing the granule of Herdeman would have required only limited routine experimentation and been obvious. A granule produced as disclosed by Herdeman will inherently have a higher enzyme activity than a test granule as required by claims 29 and 31.

Response to Arguments

The type of response set forth above in regard to Herdeman drying also applies to this rejection.

Claim Rejections - 35 USC § 103

Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herdeman in view of Painter et al and Dychdala et al.

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Claim 33 requires the barrier to be an organic acid salt, and claim 34 requires sodium citrate dihydrate or magnesium acetate tetrahydrate as a barrier salt.

Painter et al disclose using sodium citrate dehydrate (col 9, lines 15-16) as an alkaline salt in a washing composition.

Dychdala et al disclose using different hydrated inorganic salts including sodium phosphate dibasic heptahydrate (col 3, lines 63-64) to provide a water content of 3-13% (col 9 line 29).

It would have been obvious to use as the alkaline buffer salt of Herdeman the sodium citrate dehydrate taught by Painter et al since this salt would have been expected to maintain a moisture content of 3 to less than 10% that Herdeman may use and as suggested by Dychdala et al using a hydrated salt to maintain a moisture content of 3-13%.

Double Patenting

Claims 12-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,602,841 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the presently claimed granule having a protein core and hydrated barrier and method for preparation thereof encompasses the granule having a protein core and hydrated barrier and method for preparation thereof of the patent claims, and would have been obvious from the patent claims.

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Response to Arguments

Applicants state that this rejection will be addressed when claims are found allowable.


Conclusion

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 571-272-0920. The examiner can normally be reached on Monday-Friday 9:30-6:00.

10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


David M. Naff
Primary Examiner
Art Unit 1657

DMN
15 10/29/07